

REMARKS

35 USC §103(A)

Claims 1-10, 19-26 and 57 are rejected under 35 USC 103(a) as being unpatentable over Miller et al. (US 2003/0165656) in view of Grindstaff (US 5188892). The Applicant respectfully disagrees.

Claim 1 recites:

“A fiber material, comprising:

a first base fiber component comprising a first denier and a first luster component;

a second base fiber component comprising a second denier and a second luster component, wherein the first denier and the second denier are different and wherein the first luster component and the second luster component are different; and

a plurality of binder fibers.”

As recited in the claim, there are two base fiber components – each having a denier and a luster component, whereby the individual deniers and luster components are different. This difference in denier and luster components is novel and contributes to the superior quality of the products produced by the subject matter of the present application.

The Miller publication teaches a conventional carpet fiber and a binder material, wherein the yarn is subject to singeing to remove protruding fiber ends, and subjected to heat sufficient to melt the binder fiber. The Miller publication – as the Examiner admits – is silent as to the use of mixed denier and different luster components.

The Examiner contends that:

“Applicant is correct in making the assertion that Grindstaff teaches that dyeing may not be needed to distinguish the differing denier fibers. Grindstaff teaches that if two different denier fibers can be distinguished by their differing luster then it is not necessary to dye the different fibers varying colors (col. 6, line 66-col. 7, line 5). However, if it is not possible to distinguish the two different fibers then they may be dyed different colors as described in col. 6, lines 35-56. Therefore, the Grindstaff reference teaches that the two different denier fibers are either to be distinguishable due to a difference in luster or to be dyed to provide clear distinction.” (Final Office Action, May 30, 2006, page 6, “Response to Arguments” Section).

The Applicants believe again that the Examiner is reading too much into the Grindstaff reference. The section that the Examiner points to in the Final Office Action (Cols. 6 and 7) is where Grindstaff states how DFI or degree of filament intermingling is measured. Fibers can be dyed if they aren’t otherwise indistinguishable (by size/denier, luster or melting point); however, this section does not talk about using those fibers in products, but instead discusses only the calculation of DFI and how it is facilitated. In addition, the DFI calculation certainly does not advocate or teach a mixed denier fiber, especially given that it shows how to get a DFI of about 95% (presumably not much difference in denier) or 56% (presumably a difference in denier). In fact, it only states that it measures mixed fibers – which can mean that there are two types of fibers with similar or the same deniers – where in this case, each fiber must be dyed to detect the difference between the different fibers. The Grindstaff reference states in relation to the DFI measurement: “Alternately, if the two types of filaments can be distinguished without dyeing, then the dyeing step can be omitted.” (Col. 6, lines 66-68). So, the point to calculating DFI is that the instrumentation needs to be able to distinguish between the two types of filaments by some means – different, denier, different color, different luster, different melting point, etc. There is absolutely no teaching that the fibers should have two different deniers each having a different luster, it is merely a tutorial on how to calculate

DFI. Then, in column 7, Grindstaff follows that tutorial by clearly stating that if the two deniers are different (one is distinctly smaller than the other), then nothing needs to be done to the fibers to measure the DFI, because the instrumentation will detect the size differences.

The Grindstaff reference does not cure the deficiencies of the Miller publication for the following reasons. First, the Grindstaff reference teaches that the polyester fibers – despite being different deniers – are otherwise similar, e.g. in color and may be cut to a uniform length of staple. (See Column 4, lines 30-33). Second, the Applicant again contends that the Examiner is misreading the Grindstaff reference. The Grindstaff reference is not teaching different luster components or color components, but is in fact teaching away from different luster components and/or color components. Grindstaff states that where normally different luster components or color components need to be used to distinguish different fibers in a carpet yarn, in the Grindstaff patent, the different deniers are visibly obvious and therefore, no color or luster differential needs to be initiated. (See Column 7, lines 8-16). Specifically, Grindstaff states: “unlike heather continuous filament yarns, for which the filaments must be colored to distinguish them, the DFI relates to the degree of intermingling of fibers of different deniers. Since the fiber of smaller denier is distinctly smaller of the fiber of larger denier, the difference will be immediately apparent, and there is no need to color the fibers.” (emphasis added). The Examiner points to Column 16 to show how Grindstaff discusses delustrant – but this reference is similar to those cited in the previous Office Action by the Examiner in that it isn’t relevant to the question of whether Grindstaff considered multiple luster components – which he clearly didn’t. In addition, the discussion of DFI supports the contention of the Applicants, in that, where the fibers are not otherwise distinguishable – other distinguishing factors need to be used or created in order to measure the different fibers. So, if two sets of fibers have different deniers, presumably, nothing more needs to be done to distinguish those fibers for DFI calculation purposes.

Therefore, the Applicant contends that the Grindstaff reference, in combination with the Miller publication, will not yield the subject matter of the present application, since its the multiple denier and luster components that provide the novelty of the fiber material. The Examiner needs to provide more information as to how one of ordinary skill in the art would read the teachings in

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Grindstaff, ignore the teachings regarding no color differential needed, and combine it with the Miller publication to arrive at the present application that requires both denier and luster differentials.

Based on this argument, claim 1 is allowable as being patentable over the Miller publication in view of Grindstaff. In addition, claims 2-10, 19-26 and 57 are also allowable as being patentable over the Miller publication in view of Grindstaff by virtue of their dependency on claim 1.

Claims 11-18 are rejected under 35 USC 103(a) as being unpatentable over Miller et al. (US 2003/0165656) in view of Grindstaff (US 5188892) as applied to claim 1 above, and further in view of Kobsa et al. (US 4559196). The Applicant respectfully disagrees.

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a first base fiber component comprising a first denier and a first luster component;
a second base fiber component comprising a second denier and a second luster component, wherein the first denier and the second denier are different and wherein the first luster component and the second luster component are different; and
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As recited in the claim, there are two base fiber components – each having a denier and a luster component, whereby the individual deniers and luster components are different. This difference in denier and luster components is novel and contributes to the superior quality of the products produced by the subject matter of the present application.

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fibers. Grindstaff teaches that if two different denier fibers can be distinguished by their differing luster then it is not necessary to dye the different fibers varying colors (col. 6, line 66-col. 7, line 5). However, if it is not possible to distinguish the two different fibers then they may be dyed different colors as described in col. 6, lines 35-56. Therefore, the Grindstaff reference teaches that the two different denier fibers are either to be distinguishable due to a difference in luster or to be dyed to provide clear distinction.” (Final Office Action, May 30, 2006, page 6, “Response to Arguments” Section).

The Applicants believe again that the Examiner is reading too much into the Grindstaff reference. The section that the Examiner points to in the Final Office Action (Cols. 6 and 7) is where Grindstaff states how DFI or degree of filament intermingling is measured. Fibers can be dyed if they aren’t otherwise indistinguishable (by size/denier, luster or melting point); however, this section does not talk about using those fibers in products, but instead discusses only the calculation of DFI and how it is facilitated. In addition, the DFI calculation certainly does not advocate or teach a mixed denier fiber, especially given that it shows how to get a DFI of about 95% (presumably not much difference in denier) or 56% (presumably a difference in denier). In fact, it only states that it measures mixed fibers – which can mean that there are two types of fibers with similar or the same deniers – where in this case, each fiber must be dyed to detect the difference between the different fibers. The Grindstaff reference states in relation to the DFI measurement: “Alternately, if the two types of filaments can be distinguished without dyeing, then the dyeing step can be omitted.” (Col. 6, lines 66-68). So, the point to calculating DFI is that the instrumentation needs to be able to distinguish between the two types of filaments by some means – different, denier, different color, different luster, different melting point, etc. There is absolutely no teaching that the fibers should have two different deniers each having a different luster, it is merely a tutorial on how to calculate DFI. Then, in column 7, Grindstaff follows that tutorial by clearly stating that if the two deniers are different (one is distinctly smaller than the other), then nothing needs to be done to the fibers to measure the DFI, because the instrumentation will detect the size differences.

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Kobsa does not cure this defect in Grindstaff, because Kobsa only discloses a new method of dying carpets. Therefore, although Kobsa may combine with Grindstaff or the Miller publication to show how the fibers in Grindstaff or Miller may be dyed in a new method, Grindstaff and Miller do not disclose the combination of two base fiber components – where each base fiber component has a denier and a luster component different from that of the other base fiber component.

Therefore, the Applicant contends that the Grindstaff reference, in combination with the Miller publication and the Kobsa reference, will not yield the subject matter of the present

application, since its the multiple denier and luster components that provide the novelty of the fiber material. The Examiner needs to provide more information as to how one of ordinary skill in the art would read the teachings in Grindstaff, ignore the teachings regarding no color differential needed, and combine it with the Miller publication and the Kobsa reference to arrive at the present application that requires both denier and luster differentials.

Based on this argument, claim 1 is allowable as being patentable over the Miller publication in view of Grindstaff and further in view of Kobsa. In addition, claims 11-18 are also allowable as being patentable over the Miller publication in view of Grindstaff and further in view of Kobsa by virtue of their dependency on claim 1.

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REQUEST FOR ALLOWANCE

Claims 1-26 and 57 are pending in this application, and the Applicant respectfully requests that the Examiner reconsider all of the claims in light of the arguments presented and allow all current and pending claims. The Applicant also respectfully requests that the Examiner contact the Applicant if a Notice of Allowance will not be issued, so that the Applicant can timely file a Notice of Appeal.

Respectfully submitted,

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